

SELECT COMMITTEE ON PUBLIC EDUCATION (SCR 22)

Executive Summary And Report of the Edit and Review Committee



THE HONORABLE WILLIAM P. HOBBY, CHAIRMAN LIEUTENANT GOVERNOR OF TEXAS

THE HONORABLE JOE KELLY BUTLER, VICE CHAIRMAN CHAIRMAN, STATE BOARD OF EDUCATION

The State of Texas Sixty-Seventh Legislature First Called Session

SENATE CONCURRENT RESOLUTION 22

Establishing the Select Committee on Public Education to study and make recommendations of methods to provide quality public education.

WHEREAS, High quality education for the citizens of Texas is a vital public concern, and a major portion of the state's total budget is appropriated for education; and

WHEREAS, The education system will be undergoing important changes as a result of recent major policy decisions in such areas as curriculum reform, bilingual education, and requirements relating to teacher competency; and

WHEREAS, Additional decisions may need to be made, particularly concerning financial matters, following the outcome of current litigation and the proposed reduction in federal funds and considering the growth of the permanent school fund; and

WHEREAS, Local independent school districts need to reevaluate their current programs in light of the statewide assessment results, and many districts face continuing difficulty in financing capital expenditures; and

WHEREAS, The legislature indicated its continuing concern and need for additional information about education matters during the Regular Session of the 67th Legislature by authorizing interim studies of educational costs and of vocational education; and

WHEREAS, These important and widespread changes, along with continuing general property tax concerns, create a need for leadership and for a forum for cooperation and communication relating to public education in Texas; now, therefore, be it

RESOLVED by the Senate of the State of Texas, the House of Representatives concurring, that the 67th Legislature, 1st Called Session, hereby establish a special committee to study the issues and concerns relating to public education in Texas, including curriculum reform, bilingual education, requirements relating to teacher com-

petency, and alternative methods of financing; and, be it further

RESOLVED, That the committee be composed of 18 members, including the lieutenant governor, chairman; the speaker of the house of representatives, vice-chairman; the chairman of the Senate Committee on Education; four other members of the senate, to be appointed by the lieutenant governor; the chairman of the House Committee on Public Education; four other members of the house, to be appointed by the speaker of the house; the chairman of the State Board of Education; two other members of the State Board of Education, to be appointed by the chairman of that board; the chairman of the Governor's Advisory Committee on Public Education; and two other members of the Governor's Advisory Committee on Public Education, to be appointed by the governor; the chairman shall appoint advisory committees, as necessary, and the committee shall hold meetings and public hearings at the call of the chairman; and, be it further

RESOLVED, That the Central Education Agency be authorized to provide an executive director and staff support for the committee to assist with the conduct of the study; and, be it further

RESOLVED, That the committee have the power to issue process to witnesses at any place in the State of Texas, to compel the attendance of such witnesses, and to compel the production of all books, records, documents, and instruments that the committee may require; if necessary to obtain compliance with subpoenas and other process, the committee shall have the power to issue writs of attachment; all process issued by the committee may be addressed to and served by any peace officer of the State of Texas or any of its political subdivisions; the chairman shall issue, in the name of the committee, such subpoenas and other process as the committee may direct; in the event that the chairman is absent, the vice-chairman or any designee of the chairman is authorized to issue subpoenas or any other process in the same manner as the chairman; witnesses attending proceedings of the committee under process shall be allowed the same mileage and per diem as are allowed witnesses before any grand jury in the state. The testimony given at any hearing conducted pursuant to this resolution shall be given under oath subject to the penalties of perjury; and, be it further

RESOLVED, That the committee be authorized to request the assistance, where needed in the discharge of its duties, of all state agencies, departments, and offices, and that it be the duty of such agencies, departments, and offices to assist the committee when requested to do so; the committee shall have the power to inspect the records, documents, and files of every agency, department, and office of the state, to the extent necessary to the discharge of its duties within the area of its jurisdiction; and be it further

RESOLVED, That the operating expenses of the committee be paid from the Contingent Expense Fund of the Senate and the Contingent Expense Fund of the House, equally, and that the committee members be reimbursed from these funds for their actual expenses incurred in carrying out the provisions of this resolution; and, be it further

RESOLVED, That the committee make complete reports, including findings, recommendations, and drafts of any legislation deemed necessary, to the legislature as necessary and appropriate; copies of the reports shall be filed in the Legislative Reference Library, with the Texas Legislative Council, with the Secretary of the Senate, and with the Chief Clerk of the House.

ATTEST:

WILLIAM P. CLEMENTS, JR.

Governor of Texas

WILLIAM P. HOBBY

Lieutenant Governor of Texas

BETTY KING

Secretary of the Senate

BILL CLAYTON

Speaker of the House of Representatives

BETTY MURRAY

Chief Clerk of the House

Date Passed: August 10, 1981



Select Committee On Public Education

Chairman

The Honorable William P. Hobby Lieutenant Governor of Texas Houston, Texas

Vice Chairman
The Honorable Bill Clayton
Speaker of the House of Representatives
Spring Lake, Texas

The Honorable W.E. (Pete) Snelson State Senate Chairman, Senate Education Committee Midland, Texas

The Honorable Ray Farabee State Senate Chairman, Senate Affairs Committee Wichita Falls, Texas

The Honorable Grant Jones State Senate Chairman, Senate Finance Committee Abilene, Texas

The Honorable Oscar Mauzy State Senate Chairman, Senate Jurisprudence Committee Dallas, Texas

The Honorable Mike Richards
State Senate
Vice Chairman, Senate Subcommittee
on Elections
Houston, Texas

The Honorable Hamp Atkinson House of Representatives Chairman, Public Education Committee New Boston, Texas

The Honorable Bill Blanton
House of Representatives
Vice Chairman, House Public Education
Committee
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The Honorable Matt Garcia House of Representatives Vice Chairman, House Judiciary Committee San Antonio, Texas The Honorable Bill Haley
House of Representatives
Chairman, House Public Education Budget and
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Center, Texas

The Honorable Craig Washington House of Representatives Chairman, House Human Services Committee Houston, Texas

The Honorable Joe Kelly Butler Chairman, State Board of Education Houston, Texas

The Honorable E.R. Gregg, Jr. State Board of Education Chairman, Committee on Rules, Budget and Finance Jacksonville, Texas

The Honorable Jimmy L. Elrod
State Board of Education
Chairman, Committee on Investment of the Permanent
School Fund
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Dr. Willis M. Tate Chairman, Governor's Education Action Group Dallas, Texas

Dr. Calvin E. Gross Governor's Education Action Group San Antonio, Texas

Dr. Linus D. Wright Governor's Education Action Group Dallas, Texas

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Mrs. Cis Myers
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Select Committee on Public Education

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Senator Mike Richards

Senator Pete Snelson

Dr. Willis M. Tate Governor's Advisory Committee on Education

Representative Craig Washington

Dr. Linus D. Wright Governor's Advisory Committee on Education

Cis Myers
Executive Director

December 20, 1982

To The Honorable Governor of Texas and Members of the 68th Legislature

I am pleased to present to you a summary of the recommendations adopted by the Select Committee on Public Education. A brief justification follows each of the recommendations.

Areas addressed by the committee, through a subcommittee structure, were those considered to be timely and relevant to the public education system in Texas. Those areas included:

- Educational Personnel
- Construction, Rehabilitation and Repair, and Capital Debt Financing
- Recodification of the Education Code
- Changing Technology in Instruction
- Alternative Instructional Arrangements

The full report of each subcommittee is available under separate cover. I believe these recommendations will be most beneficial during the 68th Session, as we explore alternatives for improving the quality of public education in our state.

Respectfully submitted,

William P. Hobby, Chairman

Select Committee on Public Education



Table of Contents_____

Educational Personnel
Construction, Rehabilitation and Repair, and Capital Debt Financing
Recodification of the Education Code
Changing Technology in Instruction
Alternative Instructional Arrangements

SELECT COMMITTEE ON PUBLIC EDUCATION Senate Concurrent Resolution 22

Educational Personnel



WILLIAM P. HOBBY, CHAIRMAN LIEUTENANT GOVERNOR OF TEXAS

BILL CLAYTON, VICE CHAIRMAN SPEAKER OF THE HOUSE OF REPRESENTATIVES

SENATOR OSCAR MAUZY, CHAIRMAN SUBCOMMITTEE ON EDUCATIONAL PERSONNEL

The Subcommittee on Educational Personnel, after collecting and researching state data, receiving extensive testimony, both oral and written, from individual educators, state education associations and organizations, special interest/advocate groups, representatives of local school districts, and representatives from higher education, makes the following recommendations.

A. Salary and Benefits

It is recommended that the Texas Legislature, through its Foundation School Program, provide a public school finance plan which:

- (1) restructures the Texas Public Education Compensation Plan (salary schedule) in such a way that the beginning teacher with no experience receives an entry salary that is sufficient to attract an adequate supply and distribution of competent teachers;
- (2) compresses the current Texas Public Education Compensation Plan (salary schedule) in terms of experience steps so that an educator remaining in the profession may reach a viable, competitive salary in less time than is currently required;
- (3) provides longevity benefits once the top step in the state minimum salary schedule has been reached by an educator; and
- (4) includes a comprehensive fringe benefits package.

Justification: The Texas Public Education Compensation Plan must become competitive with private enterprise for positions requiring college graduates, while alleviating some of the impact of economic inflation. Because of the current lack of competitiveness, fewer individuals are choosing to pursue education as a career and public schools are having greater difficulties in recruiting and retaining those who do.

Compression of the salary schedule might permit an individual to reach a higher, more competitive salary prior to mid-career rather than after mid-career.

Longevity increments and a comprehensive fringe benefits package would collectively add to the competitiveness with private enterprise, while forming a strong retention or holding feature.

B. Staffing

- (1) It is recommended that the Texas Legislature, through its Foundation School Program, establish a special category within the public school finance plan which might include one or more of the following:
 - (a) provision for a source of funding from the state to allow local school districts to develop a program for the selective recruitment of new teachers, the retention of existing teachers, and/or the retraining of existing teachers to meet the specific personnel needs of the particular district;
 - (b) establishment of a statewide funding source for Teacher Education scholarships to attract graduates of Texas high schools who rank in the top 15 percent of their classes; and
 - (c) creation of a low-interest direct student loan program for students preparing to teach in areas of critical need, with provisions for portions of the loan to be forgiven as loan recipients complete years of teaching in the public schools of Texas.

Justification: The surveys of staffing needs and testimonies given by representatives of respective school districts across the state clearly indicate a diversity of staffing needs. Districts who have been successful in recruitment

need assistance in retaining those recruited. Districts having excess personnel in some teaching areas while experiencing shortages in other areas need the flexibility to retrain rather than recruit. Still other districts confronted with less advantageous economic promise and geographical constraints need the capability of recruitment and retention. A state program for Teacher Education scholarships from a reasonably select portion of Texas high school graduates (top 15 percent) coupled with a low-interest direct student loan program for students preparing to teach in areas of critical need will improve both the quality and quantity of the teacher availability pool from which the public schools may select.

(2) It is recommended that the Texas Legislature, through its Central Education Agency, establish a position-personnel registry system whereby certified education personnel and Texas public school positions available may be registered into a statewide system by contacting one of the twenty regional education service centers.

Justification: Surveys, interviews, and testimonies indicate that teacher shortages experienced by some districts are the result of the distribution of existing certified teachers as well as the general diminishing of the overall supply. Many certified teachers in the available pool are unwilling to accept positions other than in the higher paying, suburban districts. A statewide position-personnel registry system, activated at the regional level, could bring districts with positions available into direct contact with certified personnel seeking positions in a cost-effective manner.

C. Financing of Needed Resources

It is recommended that the Texas Legislature direct the State Board of Education to conduct a comprehensive study of federal, state, and local revenue-generating potential for purposes of financing special resources needed to strengthen public education in Texas. The study should include finance incentives for private enterprise such as federal income and state franchise tax credits, variable pay schedules for differentiated school staffing, and the utilization of the pupil-teacher ratio as a revenue re-distribution procedure. A report of the study shall be formulated and presented as required by law (TEC §11.26(a)(1)).

Justification: A study is needed to examine funding resources as revenues to additional revenue for the strengthening of public education in Texas. The further utilization of traditional approaches to funding for public education needs to be studied in view of alternate potential sources of funding.

SELECT COMMITTEE ON PUBLIC EDUCATION Senate Concurrent Resolution 22

Construction, Rehabilitation and Repair, And Capital Debt Financing



WILLIAM P. HOBBY, CHAIRMAN LIEUTENANT GOVERNOR OF TEXAS

BILL CLAYTON, VICE CHAIRMAN SPEAKER OF THE HOUSE OF REPRESENTATIVES

JIMMY L. ELROD, CHAIRMAN
SUBCOMMITTEE ON CONSTRUCTION, REHABILITATION AND
REPAIR, AND CAPITAL DEBT FINANCE

Based on the considerable amount of data collected and analyzed, the testimony heard from experts, and the suggestions of its advisers, the Subcommittee on Construction, Rehabilitation and Repair, and Capital Debt Financing makes the following recommendations:

1. It is recommended that the bonds issued by the public school districts of Texas be guaranteed by the corpus and income of the Pernanent School Fund. Because the Texas Constitution restricts using the full faith and credit of the state to guarantee debt, expanded use of the Fund will require a constitutional amendment.

Based on its research effort, the committee has determined that the most effective way to save school districts interest costs in the municipal bond market is to provide assistance in improving their bond ratings. Improvement of the bond rating is best achieved through a "guarantee" arrangement utilizing a large and stable financial source such as the Permanent School Fund. The Fund is constitutionally restricted to the "use by" and "benefit of" the public education system of the state. Assisting public schools in this manner appears to be well within the intent of the framers of the Constitution.

Based on information supplied by subcommittee advisers, a guarantee from the Permanent School Fund would most likely raise the bond ratings of the districts, thus saving a significant amount of tax dollars at no cost to the state. The provision of adequate safeguards protecting the corpus of the Fund from potential losses was of great concern to the subcommittee members. The following question-and-answer section illustrates important provisions which should be included in any proposed legislation in order to protect the corpus of the fund while securing the highest possible bond rating for Texas school districts.

- 1. Q. Which school districts qualify?
 - A. All Texas school districts with taxing authority automatically qualify for the guarantee program.
- 2. Q. Which school bonds qualify?
 - A. All school general obligation debt secured by ad valorem taxes qualifies when approved by the Attorney General and registered by the Comptroller.
- 3. Q. Do refunding bonds qualify?
 - A. Refunding bonds are issued to accomplish a savings in interest cost and qualify for the guarantee program.
- 4. Q. What is the extent of the guarantee?
 - A. The State Permanent School Fund will guarantee only the payment of matured items of principal and interest for which inadequate local school funds are available.
- 5. Q. What is the guarantee of the State Permanent School Fund backed by?
 - A. The guarantee of Texas school bond debt service is secured by a pledge of the income and assets of the State Permanent School Fund.

- 6. Q. Who will administer the program?
 - A. Commissioner of Education, under rules and policies adopted by State Board of Education.
- 7. Q. In the event of a default by a Texas School district requiring the advance of funds by the State Permanent School Fund, what protection or reimbursement features are afforded the State Permanent School Fund for recovery of its monies?
 - A. The State Permanent School Fund is reimbursed for advanced funds, including any statutory interest, from first State monies not constitutionally dedicated and payable to the school district. Repeated defaults by a school district may reflect acts of bad-faith, in which case and at the discretion of the Commission of Education, may be referred to the Attorney General pursuant to authorizing legislation as follows:

"In the event of a default in the payment of the principal of or interest on obligations guaranteed by the State Permanent School Fund, or any other default as defined in the resolution authorizing the issuance of the debt, the Attorney General shall institute appropriate proceedings by mandamus or other legal remedies to compel the school district or its officers, agents and employees to cure the default by performing those duties which they are legally obligated to perform. These proceedings shall be brought and venue shall be in a district court of Travis County."

- 8. Q. What are the costs to school districts for benefit of this guarantee?
 - A. It is recommended that no costs be associated with the guarantee program, as costs to the State Permanent School Fund should be negligible, except for record keeping as to outstanding school bonds covered by the guarantee.
- 9. Q. What limitations will be placed on the amount of guaranteed school bonds?
 - A. To secure the highest rating for Texas school bonds, it is recommended that the par value of outstanding guaranteed school bonds be limited to and may not exceed twice the cost value of investments and other assets of the State Permanent School Fund, exclusive of real estate.
- 10. Q. What is the effective date of the program?
 - A. It is anticipated that the proposed constitutional amendments and enabling legislation be presented to the 68th Legislative Session in 1983. Hence, the program could be effective upon passage of constitutional amendments in November 1983.
- 11. O. Will a review program of construction and financial stability be necessary at the state level?
 - A. It is believed that all school tax debt should automatically qualify under the program, subject to the limitation of the guarantee, and that a review program at the state level is not necessary with the respect to voted tax debt at the local level.
- 12. Q. Will the form of the bond contain notice of a guarantee by the State Permanent School Fund?
 - A. It is highly recommended that the form of the bond contain an excerpt relating to the Constitutional Amendment authorizing the guarantee of the payment by the State Permanent School Fund. In the alternative, an endorsement on the face of the bond bearing an unqualified guarantee of the payment of the bond by the State Permanent School Fund might be appropriate.

- 13. Q. What procedures will be established for debt service advances by the State Permanent School Fund?
 - A. A school district or its designated paying agent shall notify the State Permanent School Fund of the matter of currently maturing or matured items of principal and/or interest for which inadequate funds are on deposit in the interest and sinking fund for their payment. Upon receipt of the notice, as provided by law, the State Permanent School Fund, through procedures established by the Comptroller and the State Treasurer, shall cause the transfer of necessary funds to the paying agent.

Upon receipt of funds from the State Permanent School Fund the paying agent shall provide for the payment of all matured items of principal and interest. The enabling legislation for this program shall provide that the Comptroller of Public Accounts and the State Treasurer provide the Commissioner of Education with copies of pertinent correspondence, requisitions, warrants or wire communications to evidence payment by the State Permanent School Fund, and will serve to support reimbursement to the Fund for advanced monies from first state funds payable to the school district.

- 14. Q. Will the program assist Texas school districts with respect to their bond ratings?
 - A. It is expected that the program will enhance the bond ratings of Texas school districts. However, such will largely depend on the nature of the Constitutional Amendments and enabling legislation, and early visitations with the rating services for their suggestions.
 - 2. It is recommended that the legislature take appropriate actions to maintain the stability and ensure the continued growth of the Permanent School Fund. As such, it should allow the administrative expenses of the investment office for the Fund to be paid out of the investment proceeds.

It is the intent of the committee that the bond guarantee program utilizing the Permanent School Fund ensures that all public school districts in Texas receive the highest attainable bond rating from the rating services. In order to accomplish this goal, the present and continued stability and strength of the Fund used to guarantee the bonds must be exhibited. Currently, the Permanent School Fund is the largest endowed fund in the nation dedicated to financial assistance for public education. A factor which must be addressed in maintaining the stability of the Fund relates to the quality of personnel employed to administer the investment program.

Presently, the state is fortunate to have a highly competent staff working with the Permanent School Fund. It is difficult, however, to retain the type employee desired because of the needs of financial institutions for skilled financial analysts and bond traders. These institutions, unlike the Texas Education Agency, are not constrained by the state salary schedule when filling job vacancies. The staffing problem will continue to grow as the Fund grows if steps are not taken to address the causes. A fraction of 1 percent of the earnings for administration of the Fund would allow the State Board of Education to effectively resolve this problem.

3. It is recommended that the Texas Energy and Natural Resources Advisory Council (TENRAC) be designated and funded as the Energy Efficiency Resource Center for school districts in Texas. The Resource Center would be responsible for conducting programs in energy management, school plant operator training, and energy efficiency in new building design. The center would also provide limited technical assistance to school districts, administer federal programs which provide grants to schools for energy conservation projects, serve as a clearinghouse for energy-related information on school facilities, and offer the following services to educators: energy resource workshops, a film library, and energy education lesson packages.

Energy conservation is an issue of great import to the school districts of this state. Not only should the schools set an example for their students in safeguarding the world's rapidly depleting resources, but soaring utility and fuel costs must also be of paramount concern to the districts.

TENRAC is currently working on a variety of projects that will greatly assist school districts in making their own systems energy efficient, not only in maintenance, but also in construction and design of new facilities. The council is developing written information in the form of a how-to guide and a workshop accompaniment. This information will be utilized in two steps: First, an energy management plan aimed at superintendents and principals, explaining why districts need energy management plans, how they can formulate such plans, and the dollar savings involved. The second step is a training series for maintenance personnel, emphasizing preventive maintenance without having to put additional funds into the existing system.

TENRAC also sends representatives to various conferences around the state to explain energy conservation plans. In addition, the council has collected data on experimental energy programs throughout the state which might be useful to school districts.

By utilizing this state agency in a more productive manner, school districts will not only be benefitting the taxpayers by saving on utility costs, but also protecting the natural environment for future generations.

SELECT COMMITTEE ON PUBLIC EDUCATION Senate Concurrent Resolution 22

Recodification of the Education Code



WILLIAM P. HOBBY, CHAIRMAN LIEUTENANT GOVERNOR OF TEXAS

BILL CLAYTON, VICE CHAIRMAN
SPEAKER OF THE HOUSE OF REPRESENTATIVES

REP. CRAIG WASHINGTON, CHAIRMAN SUBCOMMITTEE ON RECODFICATION OF THE EDUCATION CODE

Recommendations of the Subcommittee

The Subcommittee on Recodification of the Education Code has spent many hours in research, analysis and public hearings in order to determine which areas of the Code are most in need of recodification work. Recommendations from the advisory committee, public testimony, and the subcommittee's own knowledge of the Education Code resulted in four recommendations.

The subcommittee directed the Legislative Council to prepare a draft of Chapter 19 of the Education Code, which was subsequently reviewed by the subcommittee and put forth as a recommendation:

1. The Subcommittee recommends that the Legislative Council's draft of a substantive revision of Chapter 19, Texas Education Code, Creation, Consolidation and Abolition of School Districts, be prepared for introduction and consideration by the 68th Legislature, Regular Session.

Recodification of the entire Code could be considered timely; however, the Legislative Council operates under an extremely heavy work load, and there are other areas of Texas law which are not yet codified. Since Chapter 19 deals with the creation, consolidation and abolition of school districts, it was selected, in addition to several other chapters, by the Advisory Committee as a priority to review. It was determined by the Advisory Committee and the subcommittee that this is the chapter most in need of revision.

As presently constituted, Chapter 19 is a hodgepodge of differing manners in which school district boundaries and control may be altered. There is little consistency in the chapter's treatment of such issues as petitions, elections and transfer of authority. Further, many provisions of Chapter 19 are antiquated.

The preliminary draft of Chapter 19 (See Appendix B) contains reviewer's notes after each change, explaining why such was made.

2. The Subcommittee recommends that an advisory committee be appointed to conduct continuing review of the Texas Education Code. This advisory committee shall be appointed by the Chairman of the Legislative Council, approved by and serve at the pleasure of the Council. It should be representative of lawyers practicing school law, public school administrators, the State Board of Education and the Attorney General's office, as well as geographically representative of all areas of the state. Members should be eligible for reappointment and for reimbursement of their actual expenses. The chairman of the advisory committee should be designated by the Chairman and Vice Chairman of the Legislative Council.

The need for the formation of such an advisory committee is based on the number of amendments and special laws pertaining to education that are not included in the current Education Code. Moreover, other chapters of the Code are in need of reworking and reorganization. Some subjects are scattered through several chapters and many provisions should be refined on the basis of experience and changing circumstances. In its present form, the Code is difficult to utilize for both attorneys and lawyers. The Code needs to be reviewed as an on-going process, and priority consideration should be given to those chapters reviewed by the advisory committee.

3. The subcommittee recommends that information regarding Chapter 26, Texas Education Code, concerning the rehabilitation districts, be forwarded to the Legislature without specific recommendations as an appendix to this report. (See Appendix A)

This appears to be a local matter and not one of statewide policy concern. Moreover, this is a short chapter, and pertains to only one district at this time. For this reason, members of both the subcommittee and the advisory committee felt this chapter should not be included in the general recodification but should be dealt with in the regular legislative process.

4. The subcommittee recommends that the Central Education Agency, in cooperation with the Legislative Council, identify those laws that are obsolete and those that are still applicable to public education. This report should be forwarded to the Advisory Committee to the Legislative Council (See Recommendation 2) for their review. Legislation should then be prepared that would recodify those laws of continuing value in the appropriate sections of the Education Code and repeal those which are no longer applicable.

The great number of special and local laws, particularly bracket bills, that are not published in the Code and may be obsolete, make it imperative that all existing educational laws be sorted out and evaluated as to their relevance to the present day educational system in Texas.

SELECT COMMITTEE ON PUBLIC EDUCATION Senate Concurrent Resolution 22

Changing Technology In Instruction



WILLIAM P. HOBBY, CHAIRMAN LIEUTENANT GOVERNOR OF TEXAS

BILL CLAYTON, VICE CHAIRMAN SPEAKER OF THE HOUSE OF REPRESENTATIVES

REP. WILLIAM BLANTON, CHAIRMAN SUBCOMMITTEE ON CHANGING TECHNOLOGY IN INSTRUCTION

Curriculum Recommendations

Recommendation #1:

It is recommended that the Central Education Agency emphasize the importance of science, mathematics, and technology education by:

- incorporating specific course content objectives within existing requirements for high school graduation; and
- considering increasing the high school graduation requirements for mathematics and science if found appropriate.

Justification

Maintenance of United States leadership in science and technology, and support of a commitment to the democratic ideal of full and informed citizen participation, require an educational system with capacity not only to generate a sufficiently large pool of well-prepared students to pursue professional science and engineering careers but also to raise general science and technology literacy levels for all students in order to prepare them to live in a technological society.

Research collected by the National Science Board shows that high school students today are shunning science and taking the minimum of math. Mathematical and verbal Scholastic Aptitude Test (SAT) scores have declined steadily over an 18-year period through 1980. The decline of mathematics scores among 17-year-olds is particularly severe in the areas of problem solving and applications of mathematics. Yet these are the very skills that are necessary to produce students who can relate to technologically oriented tools such as computers. These are the adults who will live their lives in the age of technology and electronics. Already employers in industry and officers of the military complain that new recruits cannot function in work that requires technical or logical understanding.

Such issues and documentation point out the importance of not only educating young people in the arena of computer literacy but also assuring that they develop the solid foundations in science and mathematics to enable them to enter the world of technology. The National Governor's Association Task Force on Technological Innovation in February of 1982 issued a "Resolution of Technological Excellence" which says that "States and federal government should join together with business, labor and academic leaders to demand excellence and substantially higher levels of achievement in math, science, engineering and computer learning in our schools."

Recommendation #2:

It is recommended that the Central Education Agency make provisions to encourage access to computer literacy for all children in Texas by:

- developing standard minimal objectives for computer literacy as an integrated part of existing curriculum at the primary and secondary level;
- providing for optional courses at the secondary level for students wishing to further pursue various studies in computing science, business automation, or vocational education.

Justification

The need for computer literacy is just being realized by people in general. Some of the basic issues involve what students should learn about computers, when they should begin to learn, and the ways they should learn about or use them. When a computer interacts with a student in a computer assisted learning mode, the student need not know much about computers. However, even this elementary interaction creates in the student a desire to learn something about the device. When a student interacts with a computer, developing programs and solving a variety of problems, more knowledge of computers is required—on both the part of the student and the teacher.

It is important that students understand the rapid changes that are occurring in the computer field and how the future of automation will affect their lives (privacy, computer crime, etc.). In particular, how will computers affect the job market and the types of jobs that are available? Current estimates are that computer-based automation of manufacturing in the United States will eliminate ten million jobs over the next twenty years. The office of the future will utilize word processing, computerized information retrieval and electronic mail. Knowledge and skills needed to function in the automated environment of the future are different from the knowledge and skills that most students are acquiring in today's schools.

A student who understands these potential changes will be prepared to successfully function in such a society. Student decisions on education and career goals should take into consideration how computers are changing the world. An understanding of these changes is an important part of computer literacy.

Professional Personnel Development Recommendations

Recommendation #3:

It is recommended that the State Board of Education:

- request the Commission on Standards to review teacher certification requirements in order to assure that computer literacy standards, both for using technology in schools or for teaching various levels of computer literacy, are included in the teacher training process. This should be done in such a way as to recognize concerns of need balanced against the issue of over-specialization; and
- establish a coordinated program for effective teacher in-service in cooperation with Regional Education Service Centers by utilizing staffs of ESCs, school districts, institutes of higher education and private resources.

Justification

In order to meet the challenge of teaching present and emerging generations of students how to function in a technologically oriented world, it is imperative that teachers and administrators be trained immediately to understand the uses of a computer, how to use a computer in instruction and how to teach about a computer.

One of the reasons teachers and administrators have been slow to learn about computers is fear of the unknown, fear of replacement, fear that is a combination of "math anxiety" and the assumption that computer work lies primarily within the area of mathematics teachers. Teachers and administrators can reduce and eliminate these fears by learning more about microcomputers and having hands-on experience with them. The microcomputer itself will help because the equipment resembles a cross between a typewriter and a television, and in that sense it is somewhat familiar and comfortable.

Given the present shortage of teachers, particularly in the area of mathematics and science, it becomes a critical issue to consider how sufficient numbers of computer literate as well as computer science teachers will be recruited

to step into the teaching ranks. Serious coordinated planning, the development of short- and long-range goals, and the expanded allocation of resources for massive computer literacy training will be needed in order to meet this challenge.

If districts choose to implement computer programs with existing staff, then certain job descriptions will have to be changed so that it is very clear whose responsibility it is to keep up with the state-of-the art, to find and catalogue needed courseware, and to maintain the equipment. For example, centralized computer assistance is a function that could be most economically provided by Education Service Centers. They already possess transportation for the delivery and pick-up of media. Vendors of computer equipment would have only one contract to deal with and the administrative burden would be removed from the schools.

Clearly the need for trained staff is great at all levels: general computer awareness, varying degrees of computer literacy and knowledgeable administrative support for implementation of technology in education.

Funding Recommendations

Recommendation #4:

It is recommended that the Legislature support coordinated efforts to encourage technology in education by increasing monies flowing to Regional Education Service Centers through TEC Section 11.33 (a) & (b) in order to:

- provide priority funding for inservice programs for mathematics, science and computer science teachers; and
- provide incentive funding to encourage district acquisition of hardware and software.

Justification

The 20 Regional Education Service Centers provide guidance and training to local school districts in the area of computer technology. They also provide a statewide system of computer services for school manangement. Participation of school districts in these regional computer services has grown steadily since the early 1970s. Basic services include: student master files, class scheduling, test scoring, grade and attendance reporting, payroll services, personnel accounting, financial accounting, and ad valorem tax accounting. School district participation in the services is voluntary.

Regional Education Service Centers also provide a variety of other regional computer services. These services are optional and are not eligible for the state support allotment. Optional services include inventory control and systems for bus maintenance, bus routing and textbook accounting. State-of-the-art capabilities such as distributed processing and on-line file update and inquiry are also being used by an increasing number of districts. While the services being provided to the districts appear to be very useful and appropriate, many districts do not have sufficient funds for participation in the services.

Recommendation #5:

It is recommended that the Central Education Agency prepare to establish funding priorities for support of technology in education in the next biennium by:

- carefully documenting information gathered through Recommendation 4;
- establishing a coordinated data base covering locations, applications, and effects of technology in education; and

• using this information to support funding recommendations for the 1985-86 biennial budget request.

Justification

Funding for educational technology may flow simultaneously in several directions. Funding sources may be categorical as for books, television, media or computers, going into library programs, vocational units, language arts or science programs, and into special programs for migrant or special education. All these educational programs are technology users and directly or subliminally teach certain technologic user skills.

There is a lack of an adequately large and focused funding for educational technology within the public schools to allow statewide planning, development and implementation of programs for technology. School managers are inexperienced with treating technology as comprehensive systems or with refocusing a variety of funds onto technology uses and related skills.

Technology in education must be coordinated, infused with already existing content areas so that all will learn to use technology appropriately within their respective disciplines.

A piecemeal approach is hardly better than ignoring the technology. Processes, criteria and training for review and selection of computer courseware must be established. This can only be done through a coordinated data base which currently does not exist.

Recommendation #6:

It is recommended that the Central Education Agency assume a leadership role in establishing both long and short range policies and plans on the coordination, use and implementation of technology in education by:

- developing a statewide data base concerning expanding adoption and nature of local district efforts in technological areas to be used for future planning;
- coordinating and disseminating information from school districts and Regional Education Service Centers to monitor technology in education in terms of hardware, courseware, courses offered and teacher training;
- developing policies relating to statewide utilization, coordination and compatibility of computer systems;
- interfacing with national and state organizations in technology-related activities of mutual benefit;
- fostering business-school partnerships for pre-college scientific and technological endeavors;
- identify and disseminate strategies for computer utilization in schools with less than 1,500 ADA, with further emphasis on small town and rural settings.

Justification

In spite of local efforts at coordination, the rapid proliferation of technology in education has continued in a sporadic way. Limited attempts at data gathering and projecting needs have only pointed out the need for coordination and the establishment of a focal point for information gathering and dissemination. Once there is an established format for planning, steps can be taken to move forward with funding recommendations which will:

(1) support long-range goals for the state,

- (2) respond to levels of usage and awareness throughout the state, and
- (3) be realistic in terms of the state of the art in terms of hardware and software.

Recommendation #7:

Responsibility for coordination of effort should be vested in one person in the Central Education Agency, creating a leadership position to administer a division of technology in education.

The position should be interdisciplinary regarding curriculum, teacher training, evaluation, and emerging technology, and should be responsible for development, procurement and validation of hardware and software.

Justification

In order to accomplish Recommendations 1 through 6, it appears to be necessary to establish a focal point at the state level to act as a catalyst. The subcommittee believes the creation of a division of technology within the Central Education Agency could fulfill this role.

SELECT COMMITTEE ON PUBLIC EDUCATION Senate Concurrent Resolution 22

Alternative Instructional Arrangements



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SENATOR GRANT JONES, CHAIRMAN SUBCOMMITTEE ON ALTERNATIVE INSTRUCTIONAL ARRANGEMENTS

Program Recommendations

Recommendation #1:

It is recommended that the Central Education Agency emphasize the importance of science, mathematics and technology education by:

- strengthening the course requirements for high school graduation;
- providing adequate funding for inservice programs for mathematics and science teachers;
- fostering business-school partnerships for pre-college math and science endeavors;
- encouraging implementation of alternative instructional arrangements and/or magnet schools which focus on mathematics, science and technology; and
- encouraging alternative staffing patterns to more effectively utilize teachers with mathematics and science expertise.

Justification

Reports show that student achievement scores on national assessment scales in mathematics and science are unsatisfactory in meeting the goals of a changing society. Mathematics scores on Scholastic Aptitude Tests have declined steadily over an 18-year period. Research collected by the National Science Board shows that high school students today are shunning science. Yet skills in mathematics and science will be necessary to produce workers who can relate to technologically oriented tools such as computers. Military officers already are complaining that new recruits do not possess the skills that require technical or logical understanding.

Any effort to upgrade mathematics and science instruction must take into account the fact that the number of qualified teachers for mathematics and science courses has reached critically low levels. The above recommendation addresses this shortage from two perspectives. First, it provides for training to build up future cadres of prepared teachers. Second, it encourages the concentration of instructional programs whereby selectively trained teachers can be better utilized to teach a greater number of students in mathematics, science and technology.

Program Recommendations

Recommendation #2:

It is recommended that the Central Education Agency be encouraged to provide support for alternative schools by:

- developing guidelines for alternative instructional arrangements, giving consideration to admission requirements for students, flexible scheduling, requirements of teachers who will be assigned to the schools and descriptions of differentiated programs based on individual needs of students;
- establishing procedures for encouraging small school districts to implement cooperative programs not only in vocational and special education, but also in alternative instructional programs;
- providing for periodic reporting on results of alternative instructional arrangements in terms of state goals; and
- disseminating data about alternative school programs operating within the state.

Justification

The history of the education of Texas children reflects an ever-present concern about the differences in students' needs, and the varied approaches which have been used to address these needs. Different students learn in different ways and different teachers teach in different ways. It is important to match teacher to learning and to develop an educational system in which parents, students and teachers can choose the type of program they believe to be in their best interest. The idea of choice in public schooling is highly consistent with the principles of a democratic society and conducive to the development of a system which moves away from a single, monolithic educational program for all students and toward a diverse system of educational alternatives.

An examination of the status of alternative instructional programs throughout the state, has yielded information reflecting a wide variety of identified needs and strategies to address these needs. Large and small districts, rich and poor districts, have found creative ways to address their own perceived needs. The above recommendation, by providing for guidelines, information and models, allows school districts to focus on their own needs, and encourages local initiative in finding solutions to their own problems.

Program Recommendations Recommendation #3:

It is recommended that the Central Education Agency adopt a merit or differentiated transcript for students who graduate from accelerated programs in Texas high schools.

Justification

At a time when the skills necessary for employment and day-to-day living are becoming increasingly complex and technologically oriented, we are seeing a decrease in the number of advanced or rigorous courses being taken for high school graduation. Only 34 percent of Texas high school graduates have completed three years of math. Only 8 percent have completed a course in calculus. A little over 30 percent have completed a course in chemistry. Less than 1.5 percent have completed an advanced level foreign language course.

A study of alternative programs in Texas reveals certain instructional administrative components that seem to be present in almost all successful programs regardless of the size of the school district. These include a clear and commonly understood primary objective, a rigorous curriculum with limited choices, greater expectations of students in areas such as homework and extra-curricular activities, and increased demands on teachers. These elements could be supported across the state by specifying a more rigorous, disciplined, demanding instructional track that would lead to a merit transcript acknowledged as exceptional throughout the state.

Recommendations

Program Recommendations

Recommendation #4:

It is recommended that the State Board of Education request the Commission on Standards for the Teaching Profession to review teacher training requirements to insure that within existing course requirements, com-Petercies are specifically addressed dealing with classroom management, discipline, and special student needs.

Justification

Alternative instructional arrangements have been implemented throughout the state to address an ever-widening array of identified student and school district needs. While local school districts are to be commended for developing creative solutions to perceived problems, it must be noted that alternative programs such as magnet schools and suspension centers cannot be implemented for every identified student need. Training should be provided to equip regular program staff with those competencies necessary for dealing with a varied student population.